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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Jerzy Bala

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01/03/2006

SCHIFF HARDIN & WAITE

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EXAMINER

DAYE, CHELCIE L

ART UNIT

PAPER NUMBER

2161

DATE MAILED: 01/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/616,718	BALA, JERZY	
	Examiner	Art Unit	
	Chelcie Daye	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/31/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is issued in response to Application filed on July 03, 2003.
2. Claims 1-3 are pending.
3. Claims 1-3 are rejected.

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the specification: Fig. 1, items 10, 12, and 14. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted step is for the phrase "beginning attribute and value selection....". Examiner is unsure what "value" applicant is referring to and how the "value" is being generated.

7. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. The term "best" in claim 1 is a relative term, which renders the claim indefinite. The term "best" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kargupta (US Patent No. 6,708,163) in view of Kamath (US Patent No. 6,675,164), and further in view of "Distributed Mining of Classification Rules", by Cho and Wuthrich, Published on January 2002; referred to hereinafter as "Cho".

Regarding Claim 1, Kargupta discloses a method for distributed data mining (column 3, lines 7-9, Kargupta), comprising the steps of:

invoking agents (Fig.8, Kargupta) by a mediator (Fig.8; column 3, lines 60-66, Kargupta; wherein facilitator corresponds with mediator);

beginning attribute and value (column 3, lines 20-27, Kargupta) selection by a plurality of agents (Fig.8, Kargupta);

passing a best attribute and value pair (column 13, lines 18-27, Kargupta) from each of said plurality of agents to said mediator (column 28, lines 49-55, Kargupta); and

notifying each of said plurality of agents (column 30, lines 3-8, Kargupta; wherein tell corresponds with notifying). However, Kargupta does not explicitly disclose the steps of selecting a winning agent; initiating data splitting by said winning agent; forwarding split data index information from said winning agent; generating and saving partial rules; and outputting complete rules. On the other hand, Kamath discloses selecting a winning agent (column 14, lines 17-18, Kamath); initiating data splitting (column 13, lines 56-60, Kamath) by said winning agent (column 14, lines 17-19, Kamath); and forwarding split data index

information (column 13, lines 64-66, Kamath; wherein when the list is being sorted this results in an data index) from said winning agent (column 14, lines 17-19, Kamath). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Kamath's teaching into the Kargupta system. A skilled artisan would have been motivated to combine in order to determine the most noteworthy agent with the appropriate data. After designating the proper information, separating the information would allow for the system to mine through a large collection of data, quicker and efficiently, causing the cost of production to decrease. However, Kargupta in view of Kamath, do not explicitly disclose generating and saving partial rules and outputting complete rules. On the other hand, Cho discloses generating and saving partial rules (pg. 2, lines 14-18, Cho) and outputting complete rules (pg. 4, lines 24-25, Cho). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Cho's teaching into the Kargupta in view of Kamath system. A skilled artisan would have been motivated to do so in order to permit the system to produce only a fractional amount of the rules, this guarantees that the found knowledge reflects the entire database because the generated knowledge is taking the data from all the sources into account. This system results in, fast-distributed data mining.

Regarding Claim 2, Kargupta in view of Kamath, further in view of Cho, discloses a method wherein said plurality of agents include non-winning agents, and further comprising the step of:

obtaining split data index information (column 13, lines 64-66, Kamath) by said non-winning agents (column 14, lines 18-27, Kamath) from said mediator (Fig.8; column 3, lines 60-66, Kargupta).

Regarding Claim 3, Kargupta in view of Kamath, further in view of Cho, discloses a method wherein said split data index information is compressed (Fig.5, item 123; column 21, lines 46-54, Kamath).

Other Prior Art Made of Record

1. Pham et al. (US Patent No. 5,970,482) discloses a neuroagent approach is used in an automated and unified data mining system to provide an explicitly predictive knowledge model. The neuroagent is a neural multi-agent approach based on macro-connectionism and comprises a double integration at the association and symbolic level as well as the knowledge model level.
2. Schumacher et al. (US Patent Publication No. 20020099690) discloses a system for managing computers in a distributed computer network includes a collection agent for each computer being monitored, a local database coupled to each collection agent,

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one or more condensing agents coupled to the databases, and at least one console module.


Points of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chelcie Daye whose telephone number is 571-272-3891. The examiner can normally be reached on M-F, 7:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 571-272-4023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chelcie Daye
Patent Examiner
Technology Center 2100
December 22, 2005


Sana Al-Hashem